

# Model OS-77R Model OS-77R-I

OS77R-OS.PM5  
EFFECTIVE: 12/93



## Overspeed Speed Switch With Relay Output

### GENERAL INFORMATION AND MOUNTING DIRECTIONS

## WARNING

BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT

- ✓ Disconnect all electrical power to the machine.
- ✓ Make sure the machine cannot operate during installation.
- ✓ Follow all safety warnings of the machine manufacturer.
- ✓ Read and follow all installation instructions.

#### Installation Accessories

Hardware, tools, and optional equipment needed to install the model OS77R.

- Tools as needed for the system mounting, such as drill and screw driver.
- 18 ga. wire for extension and hook up.
- Set of wire terminating tools.
- Wire termination; such as ring or spade terminals.

#### DESCRIPTION

The OS77R is an Overspeed Shutdown Switch used for protecting the engine from excessive operating speeds. The unit monitors a frequency generated from a magnetic pickup. The OS77R-I functions identically to the OS77R but monitors engine speed from a distributor ignition.

If the unit senses an engine speed higher than the adjustable set point, the unit will cause the engine to shut down.



**WARNING:** Perform the mounting operation with power source off. The OS77R module is designed to be mounted in a flat panel. First, drill the mounting holes as shown on the template included with the packing. Insert the module from the back side of the panel and install mounting hardware.

#### SETTING THE MODEL OS77R SERIES

**IMPORTANT:** The the following instructions assume terminal number 5 is grounded. Please refer to wiring and mounting information before attempting to adjust the unit. These steps must be done before the fine tuning can be accomplished. The following steps should be followed for first time setup of unit.

- Turn "OVERSPEED ADJ." fully clockwise.
- Remove the wire from terminal # 2 of the OS77R.
- Start engine and run at the highest RPM desired. This is the RPM at which the engine should be shut down if exceeded.
- Connect a Voltmeter (or test light) between Terminal #1 (positive +) and Terminal # 2 (negative -) of the OS77R. You should read "no voltage" (test lamp will be OFF.)
- Slowly turn "OVERSPEED ADJ." counter-clockwise and STOP the INSTANT battery voltage is indicated on the voltmeter (or the test light comes ON.)
- Slowly turn "OVERSPEED ADJ." clockwise about 1/8 of an inch. Now, tighten the locknut on the "OVERSPEED ADJ." without disturbing the setting.
- Re-connect the wire to Terminal #2 on the OS77R. This reconnects the OVERSPEED shutdown circuitry.

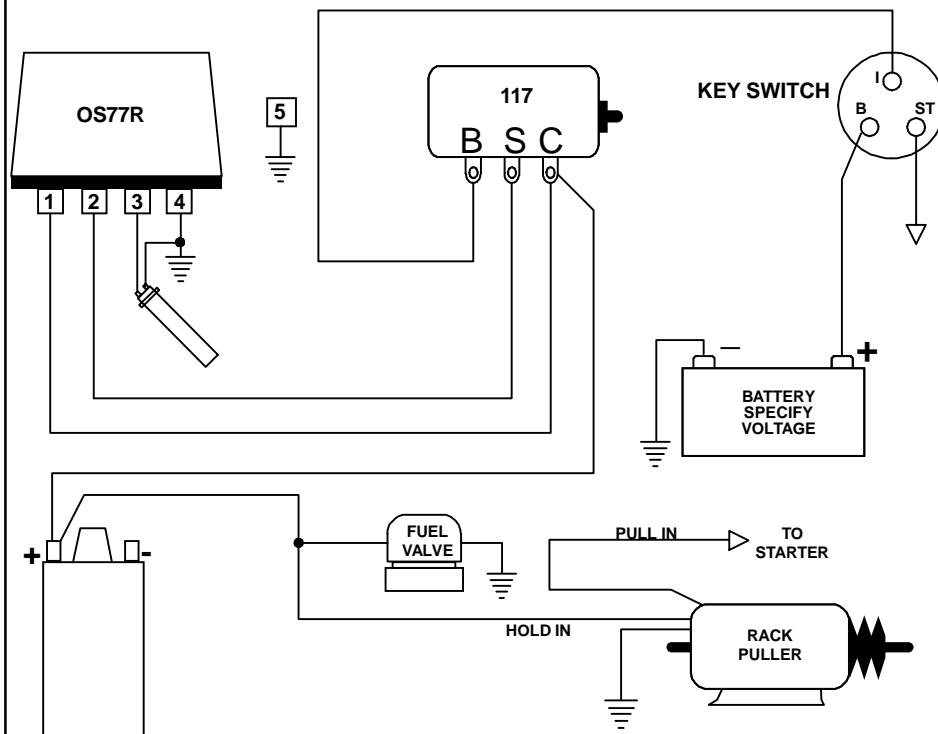
**NOTE:** If further adjustment is needed;

Turning the "OVERSPEED ADJ." clockwise, RAISES the shutdown point. This allows the engine to run at a HIGHER RPM.

Turning the "OVERSPEED ADJ." counter-clockwise LOWERS the shutdown point. This will shut down the engine at a LOWER RPM.

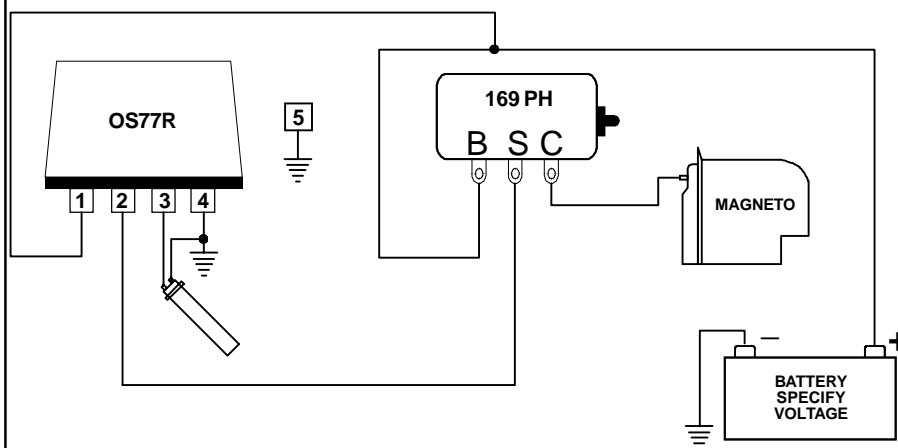
**NOTE:** Relay contacts are between terminals 2 and 5.

## WIRING INSTRUCTIONS



### OS77R USED WITH AN ENERGIZED TO RUN (ETR) SOLENOID

**Note:** For distributor ignition applications, you may use a Model OS77R-I. Simply connect terminal three (3) to the negative side of the ignition coil. You will not need a magnetic pickup with the Model OS77R-1.



### OS77R USED TO SHUT DOWN A MAGNETO IGNITION ENGINE.

**Note:** Battery power must be available. Also note, a Murphy Model 169 PH magnetic switch is used in place of a Model 117.

## WARRANTY

A two year limited warranty on materials and workmanship is provided with this Murphy product. Details are available on request and are packed with each unit.